Acute Coronary Syndromes

THE CHADS2 AND CHA2DS2-VASC SCORES PREDICT THE OCCURRENCE OF STROKE IN ACUTE CORONARY SYNDROME PATIENTS WITHOUT ATRIAL FIBRILLATION

Oral Contributions
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Background: The CHADS2 and CHA2DS2-VASc clinical prediction tools are used to grade thromboembolic risk and to guide therapy in patients with nonvalvular atrial fibrillation (AF). Their utility in patients without AF is uncertain.

Methods: The study cohort included 20,970 patients without a history of AF who were enrolled in the Alberta Provincial Project for Outcomes Assessment in Coronary Heart disease (APPROACH) registry and discharged alive after an acute coronary syndrome (ACS) between April 2005 and March 2011. We calculated the incidence of subsequent hospital discharge for stroke or transient ischemic attack (TIA) stratified by baseline CHADS2 and CHA2DS2-VASc scores, and assessed the predictive accuracy of the scores using receiver operating curve analysis.

Results: Over a median follow-up of 4.1 years, 952 (4.5%) patients developed clinical AF and 453 patients (2.2%) had a stroke (n = 297) or TIA (n = 156). The annual incidence of stroke or TIA increased with increases in both risk scores (Figure). Both CHADS2 and CHA2DS2-VASc scores had acceptable predictive accuracy in this group without AF at baseline (C-statistic = 0.68 and 0.69, respectively). Excluding those who developed AF in follow-up did not alter the results.

Conclusions: In patients with ACS but no history of AF, the CHADS2 and CHA2DS2-VASc scores have similar predictive accuracy for the risk of stroke or TIA to that observed in historical populations with AF. Whether oral anticoagulation reduces stroke risk in this group is unknown.